

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 35

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte QUENTIN J. LEWIS and ANDREY M. HASSAN

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Appeal No. 2000-2207  
Application No. 08/968,379

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ON BRIEF

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Before BARRETT, RUGGIERO, and SAADAT, Administrative Patent Judges.

RUGGIERO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal from the final rejection of claims 23-27, 30, 37-40, 42, and 43, which are all of the claims pending in the present application. Claims 1-22, 28, 29, 31-36, and 41 have been canceled.

The disclosed invention relates to a computer system having a small computer standard interface (SCSI), the SCSI having an SCSI bus which couples an internal connector with an external connector. Further included in the SCSI are an internal SCSI

terminator at an internal end of the SCSI bus, and an internal switchable terminator at an external end of the SCSI bus. If the internal switchable terminator senses that any external SCSI peripheral devices or an external terminator are connected to the SCSI bus, the internal switchable terminator does not terminate the SCSI bus on the external side. If no external SCSI devices or an external terminator are attached to the bus, then the internal switchable terminator terminates the SCSI bus on the external end.

Claim 23 is illustrative of the invention and reads as follows:

23. A bus system for use in a computer system having an external periphery comprising:

a small computer standard interface (SCSI) bus including a plurality of bus signal lines, the SCSI bus having an internal connector terminated by a fixed termination and a multi-pin external connector mounted to the external periphery of the computer system to interface with a removable, external termination device; and

an apparatus coupled to each of the plurality of bus signal lines to automatically enable termination of the bus signal lines of the SCSI bus in parallel at the external connector when the external termination device is disconnected from the SCSI bus, the apparatus including

a sensing line coupled to a pin of the external connector, the sensing line to sense whether the external termination device is coupled to the SCSI bus, the sensing line being common to the bus signal lines,

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a pull-up resistor coupled to the sensing line, the pull-up resistor driving the sensing line to a high voltage level if the external termination device is disconnected from the SCSI bus,

at least one termination resistor coupled to each of the plurality of bus signal lines of the SCSI bus to provide a terminating impedance at the external connector of the SCSI bus, and

a plurality of switches each including a transistor having a gate coupled to the sensing line, each of the plurality of switches coupled to one of the plurality of termination resistors and terminating a separate bus signal line of the SCSI bus if the sensing line is pulled to the high voltage level.

The Examiner relies on the following prior art:

Thrower et al. (Thrower)	5,381,034	Jan. 10, 1995
Hiroyuki (published Japanese Kokai Patent Application)	JP 03-023706	Jan. 31, 1991

Claims 23-27, 30, 37-40, 42, and 43 stand finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Thrower in view of Hiroyuki.

Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the Brief (Paper No. 33) and Answer (Paper No. 34) for the respective details.

#### OPINION

We have carefully considered the subject matter on appeal, the rejection advanced by the Examiner and the evidence of obviousness relied upon by the Examiner as support for the

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rejection. We have, likewise, reviewed and taken into consideration, in reaching our decision, Appellants' arguments set forth in the Brief along with the Examiner's rationale in support of the rejection and arguments in rebuttal set forth in the Examiner's Answer.

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims 23-27, 30, 37-40, 42, and 43. Accordingly, we reverse.

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073-74, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion, or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in

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the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the Examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

With respect to independent claims 23, 27, and 38, Appellants' arguments in response to the Examiner's obviousness rejection assert a failure by the Examiner to establish a prima facie case of obviousness since all of the claim limitations are not taught or suggested by the applied prior art. After careful review of the applied Thrower and Hiroyuki references in light of the arguments of record, we are in general agreement with Appellants' arguments as set forth in the Brief.

Initially, we find ourselves in agreement with Appellants' assertion (Brief, pages 7 and 8) that, contrary to the Examiner's contention, the signal provided over the PD line in Thrower is a control signal, not a sensing signal. Our interpretation of the

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disclosure of Thrower coincides with that of Appellants, i.e., the PD (power down) signal operates to inactivate the bus terminators to accommodate additional devices added to the SCSI, and provides no determination as to whether a terminator or an external device is present or absent as set forth in Appellant's claims.

We also agree with Appellants that Hiroyuki, applied by the Examiner to provide a teaching of automatic termination of a bus line, has no disclosure of a sensing line common to all of the bus signal lines, as also set forth in the appealed independent claims. Given these deficiencies in the disclosures of the applied prior art, we can find no teaching or suggestion, and the Examiner has pointed to none, as to how and in what manner the Thrower and Hiroyuki references might be combined to arrive at the claimed invention. The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F.2d 1260, 1266 n.14, 23 USPQ2d 1780, 1783-84 n.14 (Fed. Cir. 1992).

It is also our view, that, even assuming, arguendo, that proper motivation was established for modifying Thrower with Hiroyuki, there is no indication as to how such modification

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would address the particulars of the claim language of independent claims 23, 27, and 38, each of which requires a sensing line for the detection of the presence of a termination device as well as a requirement that the sensing line be in common with the bus signal lines. In order for us to sustain the Examiner's rejection under 35 U.S.C. § 103, we would need to resort to speculation or unfounded assumptions or rationales to supply deficiencies in the factual basis of the rejection before us. In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968), reh'g denied, 390 U.S. 1000 (1968). Given the factual situation presented to us, it is our view that any suggestion to make the combination suggested by the Examiner could only come from Appellants' own disclosure and not from any teachings or suggestions in the references themselves.

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Accordingly, since we are of the opinion that the prior art applied by the Examiner does not support the obviousness rejection, we do not sustain the rejection of independent claims 23, 27, and 38, nor of claims 24-26, 30, 37, 39, 40, 42, and 43 dependent thereon. Therefore, the decision of the Examiner rejecting claims 23-27, 30, 37-40, 42, and 43 under 35 U.S.C. § 103(a) is reversed.

REVERSED

LEE E. BARRETT	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
JOSEPH F. RUGGIERO	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
	)	INTERFERENCES
	)	
	)	
MAHSHID D. SAADAT	)	
Administrative Patent Judge	)	

JFR:hh

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